

Amendments to the Claims

Applicant respectfully requests reconsideration of claims 1-4 and 17-34. Claims 24-30 have been canceled. Claims 47-53 have been added.

Listing of Claims:

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2 1. (Currently Amended) A computer implemented method comprising:
3 generating a first command for a set of network data to be executed on a local
4 memory;
5 triggering an exception responsive to attempting execution of the first command
6 on the local memory;
7 executing a second command for the set of network data on a remote memory in
8 response to the exception;
9 determining whether the second command has been executed successfully on the
10 remote memory;
11 executing the first command on the local memory upon determining the second
12 command is executed successfully; and
13 generating an error upon determining the second command is not executed
14 successfully.

1 2. (Original) The computer implemented method of claim 1 wherein the set of
2 network data is a set of configurations.

1 3. (Original) The computer implemented method of claim 1 wherein the first
2 command is a write command to an address of the local memory and the second
3 command is a write command to an address of the remote memory.

1 4. (Original) The computer implemented method of claim 1 wherein the first
2 command is a delete command for an address of the local memory and the second
3 command is a delete command for an address of the remote memory.

1 5. (Currently Amended) A computer implemented method comprising:
2 mapping a first memory to a second memory;
3 receiving a set of configurations;
4 processing the set of configurations;
5 generating a set of commands for the first memory, the set of commands
6 corresponding to the processed set of configurations; and
7 triggering an exception when beginning to execute the set of commands on the
8 first memory, wherein the exception ~~performs~~ causes the following:
9 executing the set of commands on the second memory in response to the
10 exception;
11 upon determining the set of commands are executed successfully on the
12 second memory, completing execution of the set of commands on
13 the first memory; and
14 upon determining the set of commands are not executed on the second
15 memory successfully, generating an error.

1 6. (Original) The computer implemented method of claim 5 wherein the set of
2 configurations are for a set of network processes.

1 7. (Original) The computer implemented method of claim 5 wherein the error is
2 displayed as a text message.

1 8. (Original) The computer implemented method of claim 5 wherein the error is
2 passed to an error parser.

1 9. (Original) The computer implemented method of claim 5 wherein the mapping
2 the first memory to the second memory comprises associating a set of addresses of the
3 first memory to a set of addresses of the second memory.

1 10. (Original) The computer implemented method of claim 5 wherein the set of
2 commands are a set of write commands.

1 11. (Original) The computer implemented method of claim 5 wherein the set of
2 commands are a set of delete commands.

1 12. (Currently Amended) A computer implemented method comprising:
2 receiving a request to modify configuration data located at a local address in local
3 memory in an active control card; and
4 generating an exception when the configuration data located at the local address
5 in the local memory is attempted to be modified, wherein the exception
6 ~~performs~~ causes, within a processor in the active control card, the
7 following:
8 modifying configuration data located at a remote address in remote
9 memory in an inactive control card, wherein the configuration data
10 located at the local address corresponds to the configuration data
11 located at the remote address;
12 modifying the configuration data located at the local address in local
13 memory in the active control card upon determining that the
14 modification of the configuration data located at the remote

15 address in the remote memory in the inactive control card was
16 successful; and
17 generating an error without modifying the configuration data located at the
18 local address in local memory in the active control card upon
19 determining that the modification of the configuration data located
20 at the remote address in the remote memory in the inactive control
21 card was not successful.

1 13. (Original) The computer implemented method of claim 12 wherein the request is
2 to write the configuration data.

1 14. (Original) The computer implemented method of claim 12 wherein the request is
2 to delete the configuration data.

1 15. (Original) The computer implemented method of claim 12 wherein the error is
2 displayed on an interface.

1 16. (Original) The computer implemented method of claim 12 wherein the error is
2 passed to an error parser.

1 17. (Currently Amended) An apparatus comprising:
2 an interface to receive a set of configurations;
3 a first control card coupled to the interface, the first control card having a first
4 memory; and
5 a second control card coupled to the interface and the first control card, the
6 second control card including a second memory, the second control card to
7 receive the set of configurations from the interface, to generate a set of

8 commands for the set of configurations, to trigger an exception responsive
9 to beginning to execute the set of commands on the second memory, to
10 execute the set of commands on the first memory in response to [[an]] the
11 exception, and to execute the set of commands on [[a]] the second
12 memory of the second control card in response to successful completion of
13 the set of commands on the first memory.

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2 18. (Original) The apparatus of claim 17 wherein the first memory and the second
3 memory are a first main memory and a second main memory.

1 19. (Original) The apparatus of claim 17 wherein the first memory and the second
2 memory are a first storage and a second storage.

1 20. (Original) The apparatus of claim 17 wherein the first memory is mapped into the
2 second memory.

1 21. (Original) The apparatus of claim 17 further comprising the second control card
2 to generate an error if the set of commands are not executed successfully on the first
3 memory.

1 22. (Original) The apparatus of claim 17 wherein the set of commands are a set of
2 write commands.

1 23. (Original) The apparatus of claim 17 wherein the set of commands are a set of
2 delete commands.

24-30 (Canceled)

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2 31. (Currently Amended) A machine-readable medium that provides instructions,
3 which when executed by a set of processors of one or more processors, cause said set of
4 processors to perform operations comprising:

5 generating a first command for a set of network data to be executed on a local
6 memory;

7 triggering an exception responsive to attempting execution of the first command
8 on the local memory;

9 executing a second command for the set of network data on a remote memory in
10 response to generation of the first command;

11 determining whether the second command has been executed successfully on the
12 remote memory;

13 executing the first command on the local memory upon determining the second
14 command is executed successfully; and

15 generating an error upon determining the second command is not executed
16 successfully.

1 32. (Original) The machine-readable medium of claim 31 wherein the set of network
2 data is a set of configurations.

1 33. (Original) The machine-readable medium of claim 31 wherein the first command
2 is a write command to an address of the local memory and the second command is a write
3 command to an address of the remote memory.

1 34. (Original) The machine-readable medium of claim 31 wherein the first command
2 is a delete command for an address of the local memory and the second command is a
3 delete command for an address of the remote memory.

1 35. (Currently Amended) A machine-readable medium that provides instructions,
2 which when executed by a set of processors of one or more processors, cause said set of
3 processors to perform operations comprising:

4 associating a first memory to a second memory;

5 receiving a set of configurations;

6 processing the set of configurations;

7 generating a set of commands for the first memory, the set of commands

8 corresponding to the processed set of configurations; and

9 triggering an exception when processing the set of commands for the first

10 memory, wherein the exception ~~performs~~ causes the following:

11 executing the set of commands on the second memory;

12 upon determining the set of commands are executed successfully on the

13 second memory, executing the set of commands on the first

14 memory; and

15 upon determining the set of commands are not executed on the second

16 memory successfully, generating an error.

1 36. (Original) The machine-readable medium of claim 35 wherein the set of
2 configurations are for a set of network processes.

1 37. (Original) The machine-readable medium of claim 35 wherein the error is
2 displayed as a text message.

1 38. (Original) The machine-readable medium of claim 35 wherein the error is passed
2 to an error parser.

1 39. (Original) The machine-readable medium of claim 35 wherein the associating the
2 first memory to the second memory comprises associating a set of addresses of the first
3 memory to a set of addresses of the second memory.

1 40. (Original) The machine-readable medium of claim 35 wherein the set of
2 commands are a set of write commands.

1 41. (Original) The machine-readable medium of claim 35 wherein the set of
2 commands are a set of delete commands.

1 42. (Currently Amended) A machine-readable medium that provides instructions,
2 which when executed by a set of processors of one or more processors, cause said set of
3 processors to perform operations comprising:
4 receiving a request to modify configuration data located at a local address in local
5 memory in an active control card; and
6 generating an exception when the configuration data located at the local address
7 in the local memory is attempted to be modified, wherein the exception
8 ~~performs~~ causes, within a processor in the active control card, the
9 following:
10 modifying configuration data located at a remote address in remote
11 memory in an inactive control card, wherein the configuration data
12 located at the local address corresponds to the configuration data
13 located at the remote address;
14 modifying the configuration data located at the local address in local
15 memory in the active control card upon determining that the
16 modification of the configuration data located at the remote

17 address in the remote memory in the inactive control card was
18 successful; and
19 generating an error without modifying the configuration data located at the
20 local address in local memory in the active control card upon
21 determining that the modification of the configuration data located
22 at the remote address in the remote memory in the inactive control
23 card was not successful.

1 43. (Original) The machine-readable medium of claim 42 wherein the request is to
2 write the configuration data.

1 44. (Original) The machine-readable medium of claim 42 wherein the request is to
2 delete the configuration data.

1 45. (Original) The machine-readable medium of claim 42 wherein the error is
2 displayed on an interface.

1 46. (Original) The machine-readable medium of claim 42 wherein the error is passed
2 to an error parser.

1 47. (New) An apparatus for maintaining consistency of data between control cards
2 comprising:
3 a network element including:
4 a first and second control cards, each including a processor and a memory,
5 to operate in a primary and secondary relationship such that there is a current primary one
6 and a current secondary one of the first and second control cards, the current primary one
7 of the first and second control cards to ensure data is written or deleted from the memory
8 of the current secondary one of the first and second control cards before being written or

9 deleted from the memory of the current primary one, wherein exceptions are triggered
10 responsive to attempts to make such modifications of the memory of the current primary
11 one, wherein each of said exceptions cause an attempt to make the modification to the
12 memory of the current secondary one, and wherein only successful ones of the
13 modifications to the memory of the current secondary one are performed on the memory
14 of the current primary one.

1 48. (New) The apparatus of claim 47 wherein the first and second control cards are
2 coupled to a configuration manager, the configuration manager designed to send
3 commands to the first and second control cards.

1 49. (New) The apparatus of claim 47 wherein the exceptions are triggered by a flag
2 contained in the memory of the current primary one of the first and second control cards.

1 50. (New) The apparatus of claim 47 wherein the exceptions cause an error to trip
2 when modification of the memory of the current secondary one of the first and second
3 control cards is unsuccessful.

4 51. (New) The apparatus of claim 47 wherein the first and second control cards are
5 globally mapped to enable modification of memory directly.

1 52. (New) The apparatus of claim 47 wherein the memory of the current primary one
2 of the first and second control cards is read-only until successful modification of the
3 current secondary one of the first and second control cards.

1 53. (New) The apparatus of claim 47 wherein the exception is triggered in hardware.